ile20/20

Two drives – one axis

The linear unit offers the possibility to implement two independent linear movements in one unit by installing two ball screw spindles. Thus 2 linear movements with the smallest dimensions can be realized

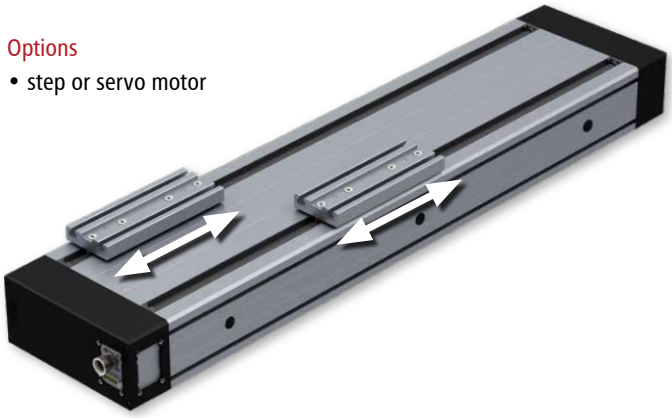
The linear units are available with one or two integrated ball screw drives (Ø 20 mm), inclines of optional 5/10/20/40 mm and with 2, 4, 6 or 8 steel slides with aluminium clamping plates.

Features

- aluminium shaft profile, anodized
- plan-milled clamping surface
- 20 mm precision steel rails with steel slides
- profile sealing with abrasion-resistant sealing lips
- two end - and reference switches
- repeat accuracy +/-0.02 mm

Options

- step or servo motor



Technical data

inertia torque Ix	705 cm^4
inertia torque Iy	2807 cm^4
centroid of an area	39,5 mm
cross-sectional area	54,22 cm^2
material	EN AW-6060 T66
anodization	E6/EV1
weight with steel rail guide	20.6 kg/m
weight with steel rail guide and KG-spindle	22.8 kg/m

Ordering key

238 XXX XXXX

drive
2 = integratetd belt drive module
3 = preparation direkt drive module

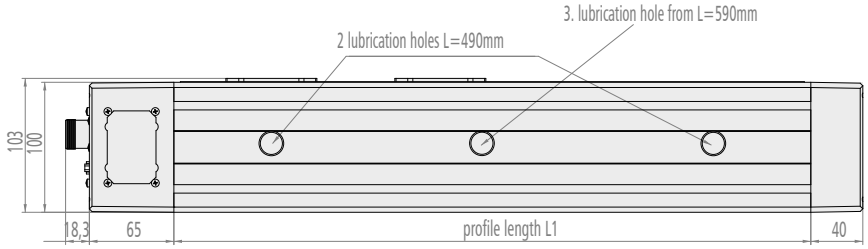
steel carriage
1 = 2 steel carriages
2 = 4 steel carriages
3 = 6 steel carriages
4 = 8 steel carriages

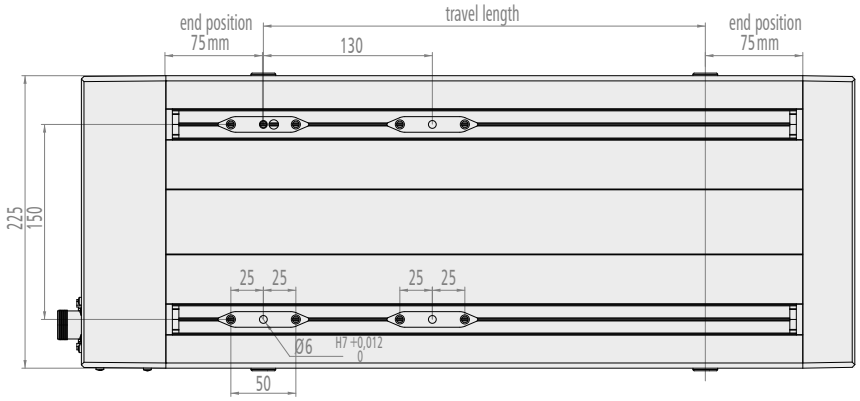
ball-type linear drive
0 = non
3 = pitch 5 mm
4 = pitch 10 mm
5 = pitch 20 mm
6 = pitch 40 mm

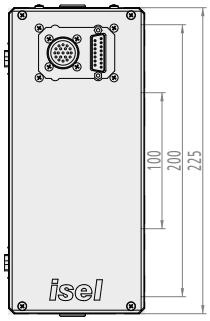
profile length
e.g. 0029 = 290 mm (min.)
0389 = 3890 mm (max.)

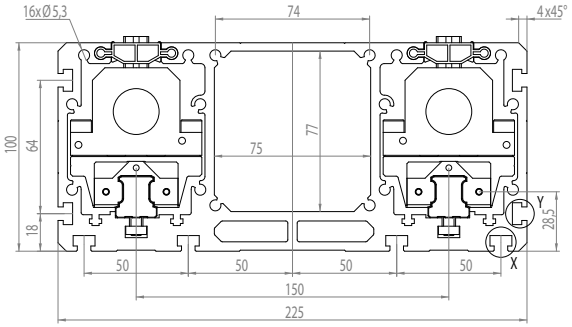
version with two spindles on request

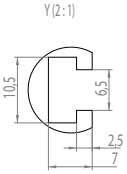
Dimensioned drawing

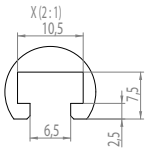












Travel length

with 2 x steel carriages	L1 - 150 mm
with 4 x steel carriages	L1 - 280 mm
with 6 x steel carriages	L1 - 410 mm
with 8 x steel carriages	L1 - 540 mm

Permissible spindle speeds

KG-spindle ø 20 mm, fixed-lot storage

	spindle pitch p [mm]	5	10	20
profile length [mm]	max. permissible spindle speed n zul. [1/min]	max. permissible feed rate v zul. [mm/s]		
490	6000	500	1000	2000
990	4000	333	667	1333
1390	2000	167	333	667
1490*	4000	333	667	1333
1990*	2000	167	333	667
2490*	1500	125	250	500
2990*	1000	83	167	333
3490*	700	58	117	233

* with spindle underpinning

Load ratings

	Number of carriages	
	2	4
C_0	40020 N	60000 N
C	22811 N	34200 N
$F1_{stat}$	40020 N	60000 N
$F1_{dyn}$	22811 N	34200 N
$F2_{stat}$	40020 N	60000 N
$F2_{dyn}$	22811 N	34200 N
$M0_x$	3002 Nm	4500 Nm
$M0_y$	800 Nm	3900 Nm
$M0_z$	800 Nm	3900 Nm
M_x	1711 Nm	3422 Nm
M_y	456 Nm	2223 Nm
M_z	456 Nm	2223 Nm

$$Fr\ (\alpha)\ \frac{F2}{\cos\alpha}$$

$$Fr\ (\alpha)\ \frac{F1}{\sin\alpha}$$